

General Manager's Annual Report.  
HON. EUGENE SECOR.

A National Honey Exchange.  
PROF. A. J. COOK.

# AMERICAN BEE JOURNAL

43d Year.

CHICAGO, ILL., FEB. 12, 1903.

No. 7.

WEEKLY



APIARY OF C. LINDBLOM, OF LAKE CO., ILL.  
(See page 101.)



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EDITOR,

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DEPT. EDITORS,

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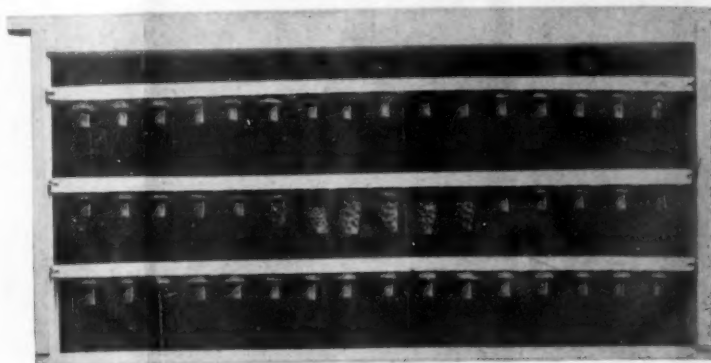
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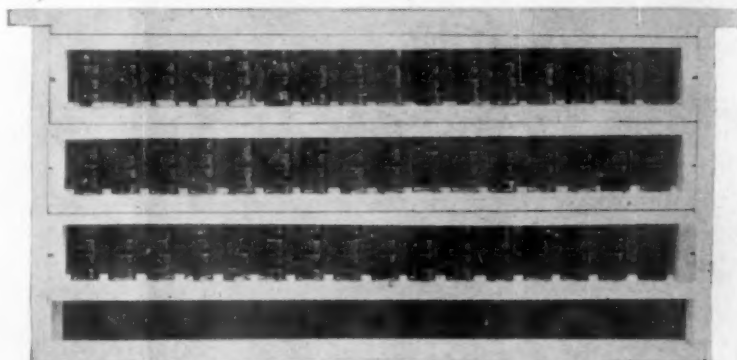
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CELL-CUPS AND FINISHED CELLS.



CAGES OF QUEEN EXCLUDING METAL.

# Stanley Queen Incubator and Brooder

An Arrangement that Allows the Bees Access to the Cells and Queens at all Times.

(Patent Applied for.)

One of the greatest objections urged against a lamp-nursery, or any kind of a nursery where bees are hatched away from the bees, is that the cells and their inmates are robbed of the actual care of the bees. When the bees have access to a cell, and the time approaches for the queen to emerge, the wax over the point is pared, and, as the queen cuts an opening through the cell, and thrusts out her tongue, she is fed and cheered in her efforts to leave the cell. A queen hatched away from the bees loses all of this food, cheer, and comradeship; and, until introduced to a nucleus, or full colony, has not the natural food that she would secure were she among the bees.

All of these objections are overcome by an invention of Mr. Arthur Stanley, of Lee Co., Ills. Mr. Stanley makes the cell-cups according to the directions given in Mr. Doolittle's "Scientific Queen-Rearing," sticking the base of each cell to a No. 12 gun-wad. By the use of melted wax these wads, with the cell attached, are stuck, at proper intervals, to a strip of wood exactly the length of the inside width of a Langstroth brood-frame. Two

wire staples driven into the inside of each end-bar, slide into slots cut in the ends of the cell-bars, and hold them in position.

The process of transferring larvae to the cells, getting the cells built, etc., have all been described in the books and journals, and need not be repeated here. When the cells are sealed they may be picked off the bar (still attached to the gun-wads); and right here is where the special features of the Stanley process steps in. Each cell, as it is removed, is slipped into a little cylindrical cage, made of queen-excluding zinc, the cage being about two inches long, and of such a diameter that the gun-wad fits snugly, thus holding the cell in place and stopping up the end of the cage. The other end of the cage is plugged up with a gun-wad. Long rows of these cages, filled with sealed cells, are placed between two wooden strips that fit in between the end-bars of a Langstroth frame are held in position by wire staples that fit into slots cut in the ends of the strips. To hold the cages in their places, holes, a trifle larger than the diameter of the cage, are bored, at proper intervals, through the upper strip, thus allowing the

cages to be slipped down through the upper bar, until their lower ends rest in corresponding holes bored part way through the lower bar.

A frame full of these cages, stocked with cells, may be hung in a queenless colony, and will require no attention whatever except to remove the queens as they are needed. The workers can freely pass into and through the cages, cluster upon the cells, care for them, and feed the queens after they hatch, exactly as well as though the queens were uncaged.

These cages are unsurpassed as introducing cages, either for fertile or for virgin queens. The bees are not inclined to attack a queen in a cage to which they can enter, yet they can surround, caress, and feed her. They can become acquainted with her, and give her the same scent as themselves. When desirable to release her, one end of the cage can be stopped with candy, and the bees allowed to liberate her by eating it out.

By putting food in one end of the cage, a queen may be kept caged, away from the bees, the same as in any other cage.

Price, \$5.00, by Express, Or with the American Bee Journal one year—both for \$5.50.



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# ESTABLISHED IN 1861 AMERICAN THE OLDEST BEE-PAPER IN AMERICA BEE JOURNAL

43d YEAR.

CHICAGO, ILL., FEB. 12, 1903.

No. 7.

## \* Editorial. \*

**The Crucial Time of Wintering** is yet to come. The novice often congratulates himself along in January or February that his bees are wintering so well, only to find later on that before settled warm weather comes many of his colonies are dead, and those that remain are badly depleted. A week toward the close of winter will show more dead bees than a month at its beginning, sometimes twice as many. It is not well to crow before you are out of the woods.

**Shaken Swarms in England.**—The British Bee Journal does not boil over with enthusiasm with regard to shaken or brushed swarms. It says:

"We fail to see any improvement in, or much, if any, practical difference between the 'new dodge' and the well-tried methods of making artificial swarms practiced in this country for many years past."

Indeed, it seems to think they have something even better there. That "one better" plan will probably be given in the said journal, when it will be a pleasure to produce it in these columns.

**Taking Out and Returning Bees to Cellar.**—Is it desirable, when a favorable day comes, to take bees out of the cellar in winter and then return them after a flight? Naturally one would suppose that giving the bees a chance to fly and relieve themselves would leave them in better condition to endure further confinement. But actual trial seemed to show that bees thus treated were rather worse than better for it. It was generally agreed that after having been out for a flight the bees did not afterward settle down in the same quietude as before their flight.

But the matter has again become unsettled because of the report of the A. I. Root Co., that in the winter of 1901-2 they took out colonies for a winter flight and then returned them with apparently good results.

It is just possible that the former view is incorrect, and as the matter has a very practical bearing it would be well if many who winter their bees in cellars would put it to the test. In the vicinity of Chicago there has been no day warm enough for bees to fly since some time in the middle or latter part of November, and it is possible that such a day may now come any time. The same is probably true throughout most of the large territory where cellar-wintering prevails. When

a good flight-day comes let a certain number of average colonies be taken out and then returned in the evening, or, at most, not more than a day or two later. Then note whether the colonies so treated appear better or worse than the others after the season has fairly opened.

If the bees can be relieved by a flight before settled weather comes, it will be well to know it and to act accordingly. Those who believe in the practice may well ask why it should be that a winter flight, or several of them, should be conceded on all hands to be a good thing for bees wintered in the open, if the same thing is bad for cellared bees. But if further experiment should only result in re-establishing more firmly the belief that it is better to leave bees in the cellar until they can come out for good, it is well for us to know the fact.

This journal will be glad to receive reports from any who may experiment along the lines indicated.

**Moving Hives with Open Entrances** has been practiced by some and mentioned approvingly, but H. H. Hyde says, in the Progressive Bee-Keeper, that after testing it to a certain extent he does not approve of it. A good deal of emphasis can be read into the last part of his sentence when he says, "It might work very successfully for a time or two, but oh, the time that it does not do so!"

**Right Bees for Queen-Rearing.**—Swarthmore, in Gleanings in Bee-Culture, says that the bees of the best age are those which are engaged in the daily play-spell. He captures these at the time of their playing. An ordinary section-super has wire-cloth nailed over it, and this is placed in front of the hive to catch the playing bees. Then a thin board large enough to cover the super is slipped down between the super and the hive, and the imprisoned bees can then be used at the will of the operator.

There may be just a little question as to the correctness of his position that there is any serious objection to having been too young for queen-rearing. A bee that has not been out of the cell an hour may not do much in the way of nursing, but it will be getting older all the time, and it is possible that it may do its share when not many hours old.

**Discharging Feces in the Hive.**—Do healthy bees discharge their feces in the hive? The general opinion has probably been that during winter confinement bees never discharge their feces in the hive until the intestines become so distended that their contents can no longer be retained, when the

bees might be considered in a more or less diseased condition.

Along with this view it has generally been held that the discharges were always more or less liquid in character. The late S. Cornell, of Ontario, stoutly held, and gave ocular demonstration to substantiate his belief, that at least sometimes the discharges were dry. Some authorities in Europe have held the same opinion, maintaining that under favorable conditions bees discharge their feces from time to time in a dry state in the hive, and that careful examination of the debris on the floor of the hive would demonstrate the truth of this belief.

The practical bearing of this matter is that if it be true that bees in a perfectly healthy state do void the contents of their intestines from time to time in a more or less solid form, then if the right conditions can be maintained there need be little anxiety as to long confinement, and little need for a flight till warm weather comes. In any case no harm can result from trying to maintain the conditions favorable to the frequent voidance in a dry form of the contents of the intestines. Chief among these conditions are pure air and the proper temperature.

**National Organization** is not looked upon with rose-colored glasses by H. H. Hyde, judging from an article written by him in the Bee-Keeper's Review. As objections to success are named: Unwillingness of beekeepers to unite with the organization; dishonesty of members; expense of operation; and the fact that to succeed the combine must "do away entirely with wholesale dealers in honey, and must sell to the retail merchants entirely."

The writer naively says that he has personal experience as a large buyer and shipper, thus appearing to be in the class of wholesale dealers, and his statement that doing away with wholesale dealers is one of the difficulties in the way of success of a national organization gives rise to the question whether the wish may not be father to the thought. The organization, however, will suffer most, in the judgment of Mr. Hyde, from "professional grumblers who take delight in picking a flaw, and in causing trouble in general."

**Gathering Statistics** is one of the things more or less talked about just now. Some think the National Association should do the work. Others think it might be done by the proper department of the National Government. Is it not possible that there might be some sort of co-operation. Gathering statistics involves expense. If we can have Uncle Sam foot the bills, in whole or in

part, and thereby have good service, it would be a desirable thing.

One consideration is that the Government is already in the business of gathering statistics. It has experience in that line, and it has the proper machinery for the work. That being the case, it looks pretty clear that the Government could do this added work at less expense than could another organization which would gather just one line of statistics.

The question then arises whether it is possible for the National Bee-Keepers' Association to do the work in a more satisfactory manner itself, and, if so, whether that increased efficiency would be worth all it would cost. The subject is open for consideration, and these columns are open for its discussion.

## Weekly Budget.

THE SIXTH ANNUAL REPORT of the General Manager of the National Bee-Keepers' Association, for 1902, reads as follows:

FOREST CITY, IOWA, December, 1902.  
*To the Members of the National Bee-Keepers' Association:—*

The past year has been a busy one for the General Manager. Bee-keepers seem to have more trouble with their neighbors than formerly. When the country was sparsely settled, and life was not so strenuous as at present, it was a rare case when neighbors sought to restrict the acknowledged right of the bee-keeper and honey-producer. But the severe competition in all lines of business, and the crowding of people into towns and cities, have developed a selfish spirit which crops out on many occasions.

But with one exception, no serious legal conflicts have occurred. The past decisions of courts establishing and confirming the rights of bee-keepers are of great importance whenever threats are made or actions begun to determine the legal rights of our members. Many of these decisions have been briefed and printed in pamphlet form for use in just such emergencies. Whenever a member gets into trouble because of his bees, and is threatened with damages, or ordered to remove them, the printed matter we have is sent to him or his attorney, and in a majority of cases the matter is dropped without further proceedings. It has been my practice not to encourage litigation. If I have reason to believe from the statement of a case that the bee-keeper is at fault, that he has so managed his bees that they have annoyed his neighbors needlessly, I do not encourage resistance to reasonable authority, but endeavor to have him reform his methods and avoid trouble. Bee-keeping is respectable, and I would have it respected through a proper system of management and the high character of its followers.

The most import case, which has been referred to the General Manager during the past year was one from Minnesota. Mr. V. Shebat, of Wabasha County, wrote me in July that he was likely to get into trouble on account of his bees, stating the case in a very clear, business-like manner. I sent him such advice and help as I thought necessary. In a hotly contested case which followed he was triumphantly vindicated. He was so grateful for the assistance rendered that he wrote the following to the American Bee Journal, which I hereby copy, as it states the matter fully, and is of enough importance, perhaps, to warrant the use of the space it occupies.

### STATEMENT OF MR. SHEBAT.

"I desire to say a few words through the American Bee Journal to the bee-keepers of America.

"I have been a member of the National Bee-Keepers' Association for 12 years, and for

more than 13 years have kept about 60 colonies of bees on a lot that I own here, and have never had any complaint made to me about my bees doing any damage or being a nuisance until this summer.

"A large church is situated on the corner opposite the lot on which my bees are located, but no complaint was ever made that they annoyed or injured any one. This summer a large church-school for girls was commenced on the lot adjacent to mine, and a city ordinance was manipulated through our city council declaring it a misdemeanor for any one to keep bees in our city, 'within 600 feet of any church, school-house, or other public building, or within 300 feet of any dwelling in said city.' This ordinance was passed in the latter part of July, and within a few days thereafter two actions were begun against me under said ordinance, and one under our State law, which declares, 'any act or commission which injures, annoys, or endangers the comfort, repose, health or safety of any considerable persons, a public nuisance.' These were all criminal actions, and I was arrested in each case.

"The case under the State law was virtually abandoned for lack of evidence, and I was declared not guilty, but the case under the new city ordinance was prosecuted with bitterness and venom. The trial was in our recorder's court, before a jury, and lasted the whole of one day.

"My attorney, Col. J. T. Bowditch, defended me on the following grounds, viz.:

"1st. That the ordinance was not authorized by our city charter.

"2d. That the city council had no power to make a nuisance of any act by passing an ordinance against it, unless the act itself was in fact a nuisance.

"3d. That the ordinance in question resulted in taking and damaging property for public use without just compensation to the owner, contrary to the Constitution of the United States and of this State; that it abridged the natural rights of private citizens; that it was unreasonable and unjust.

"4th. That if the keeping of bees contrary to the terms of this ordinance was a nuisance at all, it was a private nuisance, for which all persons injured thereby had their redress in the courts, and was such a nuisance as could not be regulated by any general ordinance or law.

"These were the main points of my defense, but, of course, each was greatly elaborated by my attorney.

"I am happy to say the jury returned a verdict 'Not guilty,' and I have since received the congratulations of many bee-keepers on the happy ending of the vicious fight that was made against me.

"My chief object in writing this communication is to thank the National Bee-Keepers' Association publicly for the valuable aid it rendered me in this fight, and to impress upon all bee-keepers the benefits to be derived from belonging to such an organization.

In the beginning I informed the officers of the Association (the General Manager) of the passage of the ordinance and the danger threatened. They at once forwarded to me valuable briefs for the use of my attorneys, and suggestions how to proceed if I should be arrested. My attorney says the briefs were of the greatest assistance in preparing my defense, that, in fact, they lightened his labors fully one-half.

After the case was decided I sent to the General Manager, Eugene Secor, a statement of the costs against me, and also a statement of the costs I had incurred in defending myself. I at once received a check for \$40, to pay a part of the expenses I had been put to. Surely, this is an Association worth belonging to, and it seems to me we ought to do all in our power to support and aid any institution that does as much for us as the National Bee-Keepers' Association.—V. SHEBAT."

Quite a number of other appeals for help and advice have been received, but none of them required any financial aid. The printed matter and letters were all that they required.

The correspondence and the routine work of the office are considerable. Indeed, the duties have been more burdensome than I felt like carrying, considering the unjust criticism of a few ambitious members. In my

last annual report I asked to be relieved, and later, tendered my resignation, but was prevailed upon to serve out the present year. I now repeat that I wish the voting membership to elect my successor.

In severing my official relationship with the Association, perhaps the friends will allow me space to call attention to some things that have been undertaken or accomplished during my incumbency.

When the Association was reorganized in 1896, it commenced business without funds and without prestige. I was its first and only General Manager. Through the hearty support and indefatigable labors of many loyal and influential friends, it has grown from zero to nearly a thousand members; and although a good deal of money has been spent in defense of bee-keepers, and to advance their interests, the financial statements submitted herewith shows its healthy condition. It is no boast to say it is the largest and most influential bee-keepers' society in the world, and is doing work that no other Association attempts since the voluntary withdrawal of the old "Bee-Keepers' Union," under the leadership of that successful manager, Thomas G. Newman.

Here is a statement of some of the more important things accomplished or attempted by this Association during the last five years.

In 1898 a good deal of time, energy and money was spent in promoting *Pure Food Legislation*, and in trying to prevent the rescinding of a classification rule by railroad authorities in regard to shipping bees.

The same year an attempt was made by the city authorities in an Illinois town to remove all bees from the corporation. This was prevented by help of the Association.

In 1899 the Association attempted to stop the sale of adulterated honey in Chicago, and spent \$300 therefor. While the suits were not successful, the publicity which the suits brought about educated the people to such a degree that an Illinois Pure Food law was passed the next year.

A number of bee-keepers were also successfully aided by advice and help from the Association.

In the year 1900 the celebrated *Utter vs. Utter* case was successfully fought out, and the court rulings and decision will be valuable as a precedent whenever quoted in like cases.

The same year a case testing the Pure Food Law of Michigan was brought against a retailer of adulterated honey, and the party found guilty and fined.

During the year 1901 another important suit was determined in Rochester, N. Y., fully testing the right to keep bees in cities. (The City of Rochester vs. Taunton.)

These cases, in addition to the many settled out of court through the efforts of the Association, and, therefore, never heard of, will inform the new members what the organization has been trying to accomplish.

It has also published for reference and distribution wherever needed, the following pamphlets and folders:

1st. *BEEES AND HORTICULTURE*.—A 14-page pamphlet (2d Ed.) in which is brought together the latest and best thoughts on the value of bees to the fruit-grower, danger and uselessness of spraying during bloom, etc., endorsed by leading editors and agricultural writers.

2d. *THE CITY OF ROCHESTER VS. TAUNTON*.—A brief of the law case above referred to.

3d. *A NEW YORK SUPREME COURT CASE* defining property in swarms.

4th. *A NEW YORK CASE* as to the liabilities of bee-keepers for injuries done by bees.

5th. *THE WIDELY QUOTED ARKADDELPHIA CASE* successfully fought by Mr. Newman as to the rights of bee-keepers.

Newspaper articles, the tendency of which was to prejudice the public against the use of honey, written in ignorance or by sensational reporters, have been replied to, and in many cases satisfactory retractions secured.

Members of Congress and chairmen of important committees have been asked to favor and promote pure food legislation with a view to stopping the sale of glucose syrup under the guise of honey.

In this, my final official report, I wish to acknowledge my obligation to many



ends and loyal supporters, and to express thanks for kind and encouraging words. I am firm in the conviction that it is time for me to slacken the speed of over-driven machinery, and turn the affairs of the Association over to a younger or more vigorous man.

I have had no conflict with the present board of Directors, nor with any of the Association officials. The utmost harmony has prevailed in our deliberations. I feel grateful for the confidence reposed in me, and the unflinching loyalty shown by them.

### Financial Report.

#### RECEIPTS.

Amount on hand at last report.....\$ 718 87  
Received for membership fees during year..... 546 50

Total.....\$1,265 17

#### DISBURSEMENTS.

Printing last year's report, etc., not in last statement.....\$ 41 15  
Paid George W. York printing Buffalo's Convention Report..... 100 00  
Paid for defense of Mr. Shebat..... 40 00  
Paid for 1000 buttons for members..... 50 60  
Paid envelopes, postals and stamps used..... 60 72  
Paid letter-heads for Association..... 5 25  
Paid pamphlets, briefs, etc..... 28 76  
Paid use of piano at Buffalo Convention..... 6 00  
Paid legal counsel..... 10 00  
Paid stenographer and clerk..... 15 00  
Paid printing this report, ballots, names..... 22 00  
Salary, 15 percent of amount received for memberships..... 81 97  
Balance on hand..... 803 72

Total.....\$1,265 17

#### NOTE.

If it is observed that the above item for membership fees is out of proportion to the number of names, it is stated in explanation:

1st. That a large number joined through local or State associations at 50 cents each.

2d. That I have not received a cent of the money paid to Mr. Abbott by the members, although their names are on the list.

3d. The untimely death of the secretary, Dr. Mason, probably accounts for his not remitting money in his hands for dues collected at Denver and at other times. He sent list of names in September, but no money.

Respectfully submitted,

EUGENE SECOR, Gen. Mgr. and Treas.

There are only two comments that we wish to make on the foregoing, viz.:

Instead of \$300 having been paid on the Chicago adulterated-honey cases in 1899, it was \$200. And, even then, some not familiar with the details thought it was a large sum to pay. We know that the same work, if done by some other attorney, would have cost more. But it was money well spent, we think.

Second, one might naturally infer from Mr. Secor's Note 2, near the close of his Report, that Mr. Abbott was still holding the money he received for annual dues last summer, after being elected General Manager by a majority of the Board of Directors. But such inference would not be true, as Mr. Abbott sent by check the net amount in his hands to Secretary Mason. So Mr. Abbott can not be blamed if the General Manager did not receive that money. According to the Constitution of the Association, the Secretary, as well as the General Manager, is authorized to receive annual membership dues.

MR. GEORGE W. FORBIS, a well-known farmer living in Howard Co., Mo., has just discovered that he has been living in a house that contains honey. Six years ago a swarm

of bees settled between the weather-boards and plastering of his residence. Lately he decided to investigate, and on taking away the weather-boarding, found that the bees had made a solid wall of honey. More than a hundred pounds of the finest quality of sweetness was taken out. Some bees seem to like large hives. These must have been something like the colonies Dr. Gallup has been writing about, and perhaps even the workers of this particular colony had the "missing link!"

THE APIARY OF MR. C. LINDBLOM appears in three views on the first page. He wrote as follows concerning it:

I take pleasure in sending you three pictures. No. 1 shows my bees on the summer stands. No. 2 presents the apiary in winter quarters, and No. 3 is my dwelling-house with two small colonies packed like the rest, but on the south side of the house.

In packing my bees, I first put two sticks across the frames, next two thicknesses of burlap, then the super on the hive filled with dry leaves. The cover is then put on, when the first part is done. Next I put on a lot of slough-grass all over and between the hives about 2 feet deep, and in this way I have wintered my bees nine years, and lost only 6 colonies. I winter an average of 12 colonies, always giving them plenty of feed, and have the hives face the south. C. LINDBLOM.

HE UNDERSTOOD HIM.—Fritz, a German lad, and little Tom were fond of each other, although neither could understand what the other said.

"Why, Tommy," said his father, "your playmate does not speak English, does he?"

"No," said Tommy; "but when a honey-bee stung him yesterday he cried in English, and I understood him."

## Convention Proceedings.

### Chicago-Northwestern Convention.

Report of the Chicago-Northwestern Bee-Keepers' Convention, held in Chicago, Dec. 3 and 4, 1902.

BY OUR OWN SHORTHAND REPORTER.

The meeting was called to order by Pres. York, at 11 a.m., Dec. 3, and Secretary Moore offered prayer, who afterward read the minutes of the previous meeting, which were approved.

Pres. York then introduced the following bee-keepers from a distance: W. Z. Hutchinson, from Michigan; Mr. and Mrs. Pickard, Mr. Wilcox, Dr. Nussle, Mr. Whitney, Mr. Morrison, and Mr. Clute, all from Wisconsin; Mr. Niver, from New York; Morley Pettit, from Canada; Huber H. Root and Mr. Simon, from Ohio; Mr. Watts, from Indiana; and Mr. Armstrong, from Iowa.

Pres. York—Also Mr. Baldrige, one of the oldest bee-keepers in Illinois. We are always glad to have him here. How far back does your experience take you, Mr. Baldrige? Don't be afraid to tell because you will give your age away.

Mr. Baldrige—I can't tell exactly; before the war.

Pres. York—Spanish War?

Mr. Baldrige—Civil War.

Pres. York—Before two wars. I am sure we are going to have a good meeting, and as others come in we will have the room crowded. I received a letter from Canada; the writer of it wanted a copy of our program, and I told him

we had no program for this convention. We don't need it here. They seem to need a program over in Canada. They have it, anyway. It was Mr. Pettit, and he is with us. We simply ask questions and discuss them; we all take part in making up the "program," as well as discussing the questions.

On motion, a committee was appointed, composed of Mr. Horstmann and Mr. Clute, to meet Mr. France at the station when he should arrive at 1:15 p.m., and escort him to the convention.

F. Wilcox—May I be permitted to say a few words before Mr. France is introduced, because I may not have another opportunity? In the letter from Mr. France he speaks of bringing free copies of his foul brood volume for distribution. I know something about the preparation and publication of those bulletins, properly called. He prepared it for publication, and upon inquiry found he could get it published for about half the price by local papers, and elsewhere, and then attempted to draw pay from the State under the general appropriation for doing it, and failed. He is not a politician, and did not understand the process for securing pay for these bulletins, so he had to bear the expense out of his own pocket. I thought I might remind those who receive one of them, that it comes entirely from Mr. France, and not from the State of Wisconsin.

Pres. York—We are glad to know this. We will appreciate it all the more as a personal gift from Mr. France.

Mr. Moore read the Treasurer's report, which was approved, and showed a good balance on hand.

Pres. York—I suppose we are one of the "best heeled" bee-keepers' associations. I think most of them have to take up a collection. We used to do that, but we have gotten beyond that, and now have some money in the treasury.

Sec. Moore—I suppose all of you know by this time that Dr. Mason died under very distressing circumstances. He was one of the best known bee-keepers in the world, and beloved by every one who knew him. I move that the chair appoint a committee of three to draw up resolutions of condolence to his family, and such other matters as should properly come under the work of such committee, and pre-

sent it to the Association when they get it complete, either this afternoon or to-morrow, for adoption.

Messrs. Hutchinson, Root, and Wilcox were named as the committee.

Pres. York—We now come to the program. I believe I said we didn't have any, but we have an order of business.

Mr. Horstmann—I move that we have a few minutes recess, so as to give the members a chance to pay their dues. Carried.

Pres. York—Before we have this intermission I would like to say that the dues are one dollar, and this dollar pays for your membership not only in this Association, but also in the National. The dues of the National are also one dollar, but if you join this one you become a member in both Associations for the one dollar, where otherwise you would have to pay a dollar to join the National and another dollar to join this Association. I hope every bee-keeper who comes here will become a member of this Association.

After a short recess the convention proceeded.

Pres. York—I would like to appoint a committee to distribute slips of paper for questions. This is the way we make up our "program." Mr. Niver and Mr. Green will act on that committee. Now, if you have any questions you would like to ask and have discussed, write them on the slips of paper, and they will be collected a little later, so we will have some questions to go on with.

Mr. York—I have four questions we will begin on while you are writing others, and we would like to have each one who wishes, and will, take part in these discussions. I do not like to call on any one, but unless we get started promptly we will have to start by calling on some one. These questions were sent in by mail. The first question is this:

CARRYING DRAWN-OUT SECTION BY RAIL.

"Is it possible to carry by rail quite a distance, sections containing foundation which has been drawn out by the bees and emptied of honey, without damaging the same? If so, how should they be packed?"

Pres. York—Who has had experience in shipping sections containing foundation which has been drawn out by the bees and emptied of honey? How can you ship without this comb breaking out of the sections? Has any one done anything of that kind?

Mr. Wilcox—There will be no trouble whatever if the weather is sufficiently warm. All you want is to ship them in hot weather.

Dr. Nussle—I would like to have them shipped packed in the super as they are when they are drawn in the summer. Heat them up and put in the super, and you can ship any distance, winter or summer.

Mr. Hutchinson—I don't see why there should be any difficulty in shipping these any more than honey. The bees can not draw out that foundation with honey without connecting it at the top and partially at the sides, and we have shipped such honey, and the thing would be the same. I don't see the point the questioner wishes to make—why foundation can not be shipped as well as honey.

Pres. York—I suppose the questioner has what Dr. Miller would call "bait-sections." Has any one else anything to say on that question? Is there anything further that can be said?

Mr. Pettit—If the sections have been kept over winter in a cold place, and were cracked, I should not think they could be shipped at all; but otherwise they would ship more easily and safely than if they had honey in.

Pres. York—Mr. Wilcox suggests that a gas stove be sent along with them!

Mr. Simon—What Mr. Pettit has said is very true, that the comb is not more susceptible, or not as much susceptible, to breakage without the foundation, or without the filling of the honey, as it would be with it; therefore, I should consider it perfectly safe to ship them in almost any kind of weather without the honey in it as well as with it. Do you understand what I am driving at?

WHAT COLONIES TO COUNT AS PRODUCERS.

"When finding the average amount of honey produced by a certain number of colonies, should the colonies which produce just a few pounds—say two or three—be counted as honey-producers?"

Mr. Hutchinson—Count every colony that produces any honey.

Mr. Wilcox—If I am counting up the average per colony, I take no notice of the honey produced from a young swarm, but I count all colonies even if they don't give me a single pound, in fixing the average per colony.

Pres. York—How does Mr. Whitney do? Did you ever get an average? How do you make it?

Mr. Whitney—I don't know any other rule than that suggested by Mr. Wilcox. I usually count mine spring count—average spring count. Last season my average spring count was a little over 103 pounds from 33 colonies.

Pres. York—Comb or extracted?

Mr. Whitney—Comb. They gave me nearly 3500 pounds from 33 colonies.

Pres. York—Is there any other view on this, or do we all agree that the proper way is to count all the colonies? If so, we will go to the next question.

COUNTING THE AVERAGE PER COLONY.

"In estimating the number of sections produced by a colony, are salable ones alone counted?"

Pres. York—Are they all counted, or only the salable ones? How do you count them?

Mr. Whitney—I would explain my method of counting in answer to that question. I count only such as you can crate and ship away. The unfinished sections I ordinarily put back and let the bees finish them up, or extract them and keep them for bait-sections.

Pres. York—Judging from most of the honey shipped to market, I would say not every one does that way. I have had it come in hardly half sealed, and half filled. Think of sending sections of honey away to market in that condition! Is there any one else who produces comb honey who cares to answer this question? How do they do over in Canada, Mr. Pettit?

Mr. Pettit—We don't count the sections that are not salable, of course. We extract those and count them in with the extracted honey, or use the sections for bait-sections.

Mr. Niver—I have found some who don't have any No. 2 honey at all, in my travels the last two months. Beekeepers should simply take and sort when they take up a super, and take off as No. 2 all that won't grade No. 1, and put it in the super and set it in front of the hives at night, and let the bees carry it in to fill up their No. 2's so they have only No. 1 to sell. That is quite a nice way, I think. That is, it gives good results.

(Continued next week.)

## Contributed Articles.

### A National Honey Exchange Outlined.

BY PROF. A. J. COOK.

IN a late number of the American Bee Journal I gave what seems to me a fair description of the signs of the times in regard to combination, whether of capital or work and the great importance of co-operation in all lines of work. I there stated that I would in a succeeding article outline what seemed to me a feasible course for the beekeepers to pursue. This is not visionary or a mere theory. It is indeed what has already proved a success with the citrus growers of Southern California. I need not, however, say Southern California now, because our Citrus Fruit Exchange has already entered and captured central California, and is even gaining a foothold in the northern part of the State. What I give, then, is no theory, it is a sort of evolution. Although the Citrus Fruit Exchange started nine years ago it is to-day an acknowledged success, and all agree that it has been the salvation of a most important industry of our State.

California is peculiarly handicapped in the circumstances attending her fruit industry. We are over 2000 miles from market, and the freight charges on fruit to the Eastern cities are about one dollar a box. We had to compete with Italy and other sub-tropical and foreign nations where citrus fruits were produced. There transportation was by water, and, so, very cheap. Our superior intelligence, energy and enterprise made it possible for us to eclipse them to a marked degree in the quality of the fruit, but with railroads against us, and their determination to "charge all the traffic would bear," it was impossible for us to win success except through co-operation. As a result we have to-day the Southern California Fruit Exchange. By



the aid of this the citrus-fruit growers of our section have won a substantial success, and I doubt if any rural industry in the country can make a better showing, despite the great disadvantage of distant market and railroad transportation.

#### A HONEY EXCHANGE POSSIBLE.

For an exchange in any line to succeed demands a very intelligent constituency. Our citrus growers of Southern California are largely educated men. They read, think, and many had wide business experience before they commenced the work of fruit-culture. Such co-operation as the Exchange implies must be founded upon faith in each other, absence of distrust and suspicion, and a willingness to pay for first-class business talent, what other lines of business are willing to pay, and do pay. Our bee-keepers, to be successful, must read and think. As a general thing the apiarists are a reading, thinking people. If I am right in this conjecture then they will be more free from suspicion and more ready to act upon recognized business principles; freer from distrust and suspicion, and must agree to procure the best business talent and ability, even though they do have to pay what seems an exorbitant price for it.

#### THE PLAN OUTLINED.

I feel certain that in time we shall have a national honey exchange. Yet, as in our government relations, the different States will act separately, and each will have its own exchange which in many respects will be quite independent of the others, though all will be organically united and one man of signal ability who is manager of the great national exchange will have general direction over all the subordinate exchanges; that is, the exchanges of the separate States. This general manager would have his headquarters in some great central market, I should suppose probably Chicago would be headquarters for the national exchange.

Of course, this general manager would have his advisers. This might be a sort of executive committee appointed from the various States, and would be composed of men of marked business ability. It would very likely be better to have this executive committee of these advisers of the great business manager made up of the business managers of the different States, in which case, of course, meetings could not be held oftener than annually, and so the business would have to be largely by correspondence. In these days of typewriters and telephones this would be no serious handicap.

The work of this general manager would be chiefly distribution and marketing. He would have his ear constantly to the ground, and would know exactly the status of all the markets of the country, and thus he would direct from the different States the sending of honey to market in a way that the best distribution would be accomplished. This would make glutting of the market an impossibility. He would have charge of appointing salaried salesmen in all the great cities, who would, under his charge, distribute the honey as the needs of the various sections require. They would also look out for the distribution among smaller places in the near vicinity of the city or town. They would also be constantly developing markets.

These various salesmen would be in constant communication with the head manager, and thus he would know through them the condition of the market in all sections of the various States. Thus his office and duties would be much the same as that of the general manager of the Southern California Fruit Exchange. The latter, however, meets his advisers once a week during the busy season, while, as stated above, the general manager of the honey exchange could hardly meet his advisers oftener than once a year.

This general manager ought to be a man of very superior business ability. Such services could not be secured except at a large salary. I should say that \$10,000 would be none too much for the right man to fill this place. He should have business instinct and capacity that would more than pay his salary many times over during a single year.

#### THE STATE HONEY EXCHANGE.

Each State exchange likewise must needs have a business manager, also of unusual business capacity. He would take charge of the exchange for the State, and would, I believe, be the one from the State to advise with the general national manager. He would have advisers also. These should be honey-producers, and should be men of business tact and shrewd business management. The duty of the State business manager would be to keep in close immediate touch with all the county or local exchanges through the State. He would also be in constant communication with

the national manager. He would direct the various local exchanges when, how, and where to ship honey, and would arrange all the details. It is possible that it would be wise to give into his hands a portion of the marketing in his own State, which of course would be done only after the closest conference with the national manager. He and his advisers would arrange all the details of packing, grading and shipping, and in case it was found desirable to advance the money to bee-keepers who were unable to wait until the sales were made, he would be the one who would look after the details of this arrangement.

The third wheel in this great system would be the local exchange. Each would have its general manager or superintendent, who might be, and I think should be, the adviser of the State manager. He would be the go-between connecting the State manager with the individual honey-producers. He would also look after the details of the local exchange, such as storing of honey, packing, shipping, labeling, etc.

#### ADVANTAGES OF THE SYSTEM.

The great advantage from such a system of distribution and marketing would be that of all such combinations—the producers would have something to say as to the price which should be received for their product, and thus would not be called upon, or at least would not be compelled, to take less for their product than the actual cost of producing it. At present the bee-keepers, like all other agriculturists, have nothing to say regarding what their wares shall bring in the market, no more than they have regarding the price of such articles as they may wish to purchase. This seems a great wrong, and by such combination as this exchange would secure, the agriculturist can win a right which in all the world's history thus far he has been deprived of.

Again, this system of marketing would enable the producer to arrange an intelligent and wise distribution, so that while no section was crowded by a surplus of his product, all sections would at all times be supplied with a sufficient amount for the needs of all the people. Heretofore there has been no system at all in this matter of distribution of products. Who can doubt but that a wise reform in this matter would be fraught with the greatest results to any industry that should secure it?

A third advantage would be the fact that the honey would be all put up and graded in a uniform and excellent style, so that buyers would be attracted as they cannot be where much of the product is sold in a form that is neither attractive nor economical. The packing could also be done very much cheaper. The grading also would be perfect, and thus every man's product would be sold on its own merits. This improvement in style of packing and this thorough grading would of necessity increase the demand for the product everywhere, and would result in greatly increased sales. The reduction in cost of packing has been about one-third in the fruit exchange. That it would be less in the honey exchange I see no reason to believe.

Still another advantage from this system of doing business would be a combination in the purchase of supplies, and thus all supplies would be bought at uniform rates, would be uniform in style, and all would be of the very best style, pattern and finish. Here again the citrus fruit exchange has made a great advance over the experience of the orange and lemon growers before the association was founded.

In the case of the Citrus Fruit Exchange the cost of marketing, including telegrams, all clerk hire, everything, is a little less than three percent, and is done much better than it ever could have been through commission men. I see no reason why the same large gains may not accrue to the bee-keepers if they can only consent to form such an organization as is outlined above.

Again, the losses during the nine years of the history of the California Citrus Fruit Exchange where about thirty million dollars worth of fruit has been sold, has been less than one-fortieth of one percent. We sometimes hear it said that farmers can not do their own business. I would like to know of a business firm or any organization or association, the country over, that has done business of such magnitude with such an infinitesimal loss as the Citrus Exchange.

If our bee-keepers will only consent to act together, and will secure men of that large business capacity which will enable them to run successfully the large undertaking, I see no reason why an abundant success may not be secured. The scheme is a grand one, and must develop slowly. California, Colorado, and Arizona, ought soon to be ready to carry it out, and with them as examples we may hope that the other States will soon wheel into line.

## Forced Swarms—Questions About Them Answered.

BY J. E. CHAMBERS.

ON page 819 (1902) are some questions about forced swarms, in answer to which I will say that it does not matter in the least whether or not they are made before queen-cells are started, for the reason that no swarm should ever be made for the sole purpose of controlling the swarming impulse, when there is no honey-flow, for in the great majority of cases no good results can reasonably be expected, unless there is a good, strong flow right at the time the colony is swarmed, in which case it will not do to wait for cells to be started, for we want to get the bees to work in the supers at once, not even to lose a day's time. And in order to do this, we must work our bees in a way that will bring them up to the flow in the best possible shape for the honey-gathering; and, he who cannot accomplish this will not succeed with the brushed-swarm method. But if you have them in condition, and honey is coming, don't wait a minute. Brush them, cells or no cells. Remember, the main thing is lots of bees and a good, strong flow of nectar. Reinforce them with a second drive in eight days, and again in eight days more, if the flow continues.

I find large starters are best in my locality, and full sheets in sections. No frame of brood is ever needed with me in order to control absconding, however, a comb of brood will do no harm, and in many cases it will have a strong tendency to prevent swarming-out. There is nothing in the idea that a comb of brood must be removed on the second day after it is given in order to prevent swarming-out. I speak of this in my own locality; with others it may be different.

There is always more or less uneasiness among bees that have been brushed, and unless the work is done rightly, they will be apt to swarm-out. However, I don't think there is any more danger of absconding than with natural swarming, provided reasonable care is exercised.

I do not consider that any advantage is to be gained by the use of drawn comb. On the contrary I think it is a big mistake to use it, for the reason that the bees will begin work in the brood-chamber first, if drawn comb is used, and may continue to waste time storing in the brood-nest when they should be at work in the supers; and that very loitering in the brood-chambers may induce swarming. And, again, they always seem less inclined to enter the supers promptly. For this very reason drawn combs are more convenient to cluster on than starters, and the queens will start laying at once, thus occupying a large part of the force in the brood-chamber.

In conclusion I will say, that to get the best results a shallow hive is necessary. It is almost impossible to get the full benefit of the brushed-swarm method with a deep hive, with most of us. Contraction is the word.

Concho Co., Texas.

## Apiculture in Germany vs. United States.

BY J. A. HEBERLY.

IT is interesting to note the difference of present-time bee-keeping in Germany and the United States, but it is surprising to see the great variety of hives, different sizes of frames, to hear the loud praising of a particular form of hive by one group, and the equally loud condemnation of the same hive by another group of apiarists, and still all pursue the same object—to induce the bees to store the most honey.

In Germany the hives are not set out singly in the garden or field, but are put into bee-houses. Sometimes it is only a wooden shanty to protect the hives from the weather, with poor light, and bees having access to the interior; more commonly they are bee-tight, single or double walled, mostly of wood, but sometimes of masonry; some are quite ornamental.

In most of them the bees fly to the south only. Usually there are but two tiers of hives, rarely three tiers, for hives are operated on from the rear, styled Dothe or Berlepsch hive, vulgarly called "breech-loader." For this form of hive the bee-house usually has ample light from the opposite side from where the bees have their entrance. For hives operated on from above, the light generally enters from the same side the hives stand, and just above the body of the hives. Generally there is but one tier of such hives, but

some, to save expense, sacrifice convenience and put two tiers, one above the other.

Then there are bee-houses called "pavilions," where the bees have their entrance from three or all four sides, with only one tier, providing ample room and light for hives operated on from above. This last is a late type, but quite expensive compared with the pavilion or old, designed for breech-loading hives. These consist of multi-hives for 4 or more colonies side by side with only a division-board between them. The front and two sides are double-walled, on a solid foundation of masonry. Two, and sometimes three, of these multi-hives are put on top of one another, thus forming one side of the pavilion; two more walls of multi-hives at right angle to the first, and the sides of the pavilion are finished. The fourth side of a small pavilion will be taken up by the entrance. In a large one there is room for a few hives on one or both sides of the door, if it is not preferred to put to the side of the door, a tier of drawers for implements, frames not in use, etc. Sometimes a row of drawers is put on the foundation, and multi-hives on top of these, because it is very inconvenient to work when the hives are near the floor. The four sides do not touch each other, there is a space of 6 to 10 inches left in each corner for the windows which are as high as the sides of the pavilion; they are pivoted in the center, the middle on the base and ceiling, so they readily turn on their long axis to the right or left, that the bees may be let out which flew off the combs while being operated on.

A neat flat roof, provision for ample ventilation, and the pavilion is finished. These are quite economical where breech-loaders are in use, costing little more than the single hive would cost, and are quite a nice addition in a garden or park. It is claimed that bee-tight bee-houses and pavilions are nice to work in, when nectar is scarce, without danger of robbing, and that often work can be done that would be impracticable on account of the weather where the hives are in the open air.

Germany.

## Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

### The Bee-Cellar in Winter.

Only two months or so now before those who winter bees in the cellar will be thinking about taking them out.

Are you keeping pretty close watch of your cellar? Does it smell sweet and clean? Bees, the same as human beings, need fresh, pure air, all the time. I am afraid that a good many of the human family do not have it always, and no doubt the bees are often in the same condition.

What do you do when your rooms need ventilation? You open up the doors and windows and let in the fresh air. If the weather is very cold you do not leave them open very long, still you feel you must have fresh air even if it does bring the temperature down for a while. Pretty good plan to give the bees the same treatment.

### Queen Laying in January—A Little Beginner.

Did you ever have a queen that started to lay eggs Jan. 10? She has brood in all stages, and she is a young queen of 1892, and was hived June 28. Her swarm was a weak one, so I had her hived in a hive with the entrance all open. Then next the hive got moth-worms. I cleaned her combs and took out the brood, so that the bees could get all eggs of the wax-worms. When that was done, in the beginning of August, she started to lay again, and laid a lot of eggs. When the honey-flow was almost over I started to feed them until they had enough. So I was rid of the moth-worms, and she had built up nicely by fall, with plenty of young bees. Now she has not been fed for two months. January 16 I opened the hive, as I wanted to see whether they had stores enough, and I found they had eggs and brood in all stages. What is the reason she started to lay so early? Our temperature was from 4 to 6 degrees above zero.

I am a beginner in bee-keeping. I get the American Bee Journal and have some bee-books besides. I have



never found anything about a queen starting to lay at this time of the year.

I commenced with 2 colonies, then I found one of them was queenless, so I united them, and increased to 7 colonies during the summer, and they are in pretty good shape.

I am a little girl, 8 years old, and I enjoy reading Yon Yonson's letters in the Bee Journal. What has become of him? Was Dr. Miller after him with a sharp stick, or what is the reason he has no more letters in the Bee Journal?

E. W. ABEL.

Northampton Co., Pa., Jan. 18.

You don't say whether your bees are outdoors or in the cellar. I judge from what you say that they are out-of-doors.

In cold weather we keep up the heat of our houses by burning fuel, coal, wood, etc. The bees do the same, only honey is their fuel, and it is burned inside their little bodies. The colder the weather the more fuel is needed.

The heat of the cluster must be kept at about 50 degrees. In very cold weather to keep the outside of the cluster at 50 degrees, the inside of the cluster must be very much warmer, and contradictory as it may seem, the colder the weather the warmer it will be in the center of the cluster. After all, that isn't any different from what it is in our homes, for the colder the weather the hotter must our fires be to keep up the proper temperature. So the heat being so great in the center of the cluster it is no uncommon thing for the queens to begin to lay in February, or even in January, when wintered out-of-doors.

They will not begin to lay so early when wintered in the cellar, because there is not so much heat in the center of the cluster.

I didn't know what had become of Yon Yonson, but hoped he was not sick. Many of us, with you, missed his quaint sayings; but he is with us again, I see.

"The Sisters" will be glad to make the acquaintance of a bright little up-to-date bee-keeper only 8 years old, who enjoys reading the Bee Journal. I hope this is not the last time we are to hear from you. I, for one, will be anxious to know how you succeed.

## \* The Afterthought. \*

The "Old Reliable" seen through New and Unreliable Glasses.  
By E. E. HASTY, Sta. B Rural, Toledo, O.

A NEW HUMORIST.

Our new humorist who has three-year-old workers and ten-year-old queens, look out he doesn't get your scalp hanging at his belt. Page 829.

RELIQUEFYING HONEY IN GLASS JARS.

How to reliquefy honey in little glass bottles without spoiling the labels is quite a problem. Can be done in the kitchen oven. Don't! First you know you'll forget and explode a lot of them—and there are too many divorces now. Solar extractor no doubt splendid; but that is just the time of year when few want to reliquefy. Where there is much such work to be done no doubt a huge heating-box, with thermometer inside, would be the thing. Heating arrangements such as would not be liable to run very much too high anyhow. Page 3.

COMBINATIONS, CO OPERATIONS, EXCHANGES, AND "SICH."

I'm like a big dog chained under the hind axle of a big wagon. (Perhaps a small dog would be a more suitable figure.) I hang back awfully and persistently; occasionally I bark; but the wagon goes right on, oft in the precise direction I don't want it to go. What is said on page 6 (1903), for the moment e'enymost made me slack my chain and walk right up under the vehicle. Perhaps the orange and lemon growers endured the business conditions of our fathers as long as they ought to. Not sure it was their duty to keep on sending oranges East and getting expense bills instead of cash. Nice—to be able to double their acreage and get satisfactory returns on \$11,000,000 worth of fruit. (Let's see, sin has a reputation of looking nice, has it not?) But what shall we do with the claim that they were sinning, sinning against wife and babies, in the old competitive way? Competition is sneaking and cruel; combina-

tion is soulless and cruel—about the choice between a thief and a robber—and often financially foolish to boot. Wick-edness develops so that in time it blinds even a soulless corporation's eyes so it cannot see its own interests. O that impossibilities might melt into possibilities! O that somebody might invent a corporation with a Christian soul inside of it! We'd vote him up to be the brother of the arch-angel Michael.

SMELTER-SMOKE CONSUMER AND BEES.

Looks like the Utah brethren are hugging a false hope, if they hope anything in the line of smoke-consumers will save their bees much. Smoke-consumers are to save fuel, and to abate the nuisance of falling soot. I fear they do not make the final products of combustion any more wholesome—if indeed they do not make them worse. Chlorine and arsenic still. Carbon becomes carbonic acid, no longer dirty but much worse for animal life. Sulphur and phosphorus become sulphuric and phosphoric acids, more violently harmful than before, but liable to seize on moisture near by and not go so far. If arrangements are made to toss the vapors in a heated condition high into the air, that may help some. Page 5.

SUGAR PER CAPITA.

If our people eat sugar 68 pounds per capita per year, then (considering the number of babies and extreme poor) a good many individuals must eat twice the ration, or 136 pounds. How many ounces would that be per day? About six. I'm aware that I eat even more than that, but it's almost hard to believe it of the other folks. Page 13.

OPEN-AIR COLONY.

An open-air colony of bees in Central Michigan is quite an interesting freak. Of course they couldn't go through the winter alive there. Possible to take the rail into the cellar—but then there would be the difficulty of their lack of honey. I wish very much we could have had that colony carried over somehow, and set back there next spring. Even a few boards laid on the fence till spring rains and winds were over would not deprive them of their claim to be called an open-air colony. Page 21.

POOR MAN AND CAPITALIST—GREEDY MANAGER.

Yes, Prof. Cook, we are no less safe in the hands of the humbler than in the grip of the capitalist—or no? Solomon takes the other side—holds that a poor man when he gets a position to oppress a poor man is like a cloud-burst, that sweeps everything away—has practically no mercy, where the rich oppressor would have some. (Prov. 28:3.) It's possible, yes probable, that the masses have risen quite a bit since Solomon's time. But humble little bear, and big, proud grizzly bear—some of us are like way-faring Johnny-cake in the nursery tale. We look at both ruefully; and we won't climb up unto either of their soft, easy-bed tongues until we are absolutely obliged to do it.

And so the one-of-a-thousand manager wants a thousand-to-one salary. Strange. Not in the business for his health, I fear. With both the name and the game of being a greedy grabber for other folks, it's asking too much to expect him to be modest in grabbing for himself. Page 22.

## Questions and Answers.

CONDUCTED BY

DR. C. O. MILLER, Marango, Ill.

(The Questions may be mailed to the Bee Journal office, or to Dr. Miller direct, when he will answer them here. Please do not ask the Doctor to send answers by mail.—EDITOR.)

### "Missing Link" in Queens—Iowa as a Honey-State, Etc.

1. On page 56, and other pages in back numbers, Dr. Gallup speaks of the "missing link" in queens. What do you understand such missing link? Is it a deficiency in the female organs that make them non-prolific and short-lived? I have bought quite a number of queens in the last 5 years, and fully  $\frac{2}{3}$  of them did not live over a year from the time they were introduced, and none of them lived over 2 years; while home-reared queens, reared by natural swarming or

supersedure, will live 5 years. This is no guess-work, I know it to do so.

2. Last September I bought a nice, select queen. She went to laying in a short time, and laid on until cold weather knocked her out, and a few days ago I found her lying in front of the hive, dead, while there were but a few other dead bees thrown out with her. Do you think she could have died from starvation on account of the bees being unable to feed her during the cold snap we had a few weeks ago?

3. How does Iowa rank as a honey-State?

4. What part of the State is considered best?

5. Would it be too cold for a West Virginia man?

6. Which is considered the better State for bees, Ohio or West Virginia? WEST VIRGINIA.

ANSWERS.—1. I am not certain that I know enough about it to give you a satisfactory answer. The "missing link" spoken of by Dr. Gallup seems to be considered something like an umbilical cord. This last is the cord through which circulation of blood is kept up between the parent and the fetus in the womb, and how anything of that kind can take place in a queen-cell is beyond my comprehension. Mr. Doolittle seems to give the matter his endorsement, which is no little in its favor, for Mr. Doolittle is usually very careful in his statements. Scientific men remain intensely silent with regard to it. I don't pretend to know anything about it, and I may be mistaken in my guess, but that guess is that nothing new has been observed at all, and that the whole thing is nonsense.

2. No, it would hardly be of starvation unless the whole colony starved, for the queen is always one of the last in the colony to starve to death.

3. About average.

4. No particular choice.

5. Probably not.

6. About the same.

I have answered those last four questions, without being at all sure, and will be glad to have any one correct me if I am wrong.

#### Best Location for Bees—Drone-Comb.

1. Which of two localities would you consider the better for an out-apiary, one beside a very large cedar swamp, and the other where wild berries grow fairly abundantly, and where clover would be in reach in moderate quantity?

2. Can one "overdo" it in removing drone-comb during the summer? Would it be a mistake to take away all, or nearly all? ONTARIO.

ANSWERS.—1. I think I'd take the berries and clover, although I don't know much about cedar swamps.

2. Don't worry about overdoing it. The best you can do, there will probably be all the drones reared that you will need. But it would be a good plan to leave some drone-comb in a few of your best colonies, trying to keep drone-comb out of all others. It is just as important to have drones of best stock as it is to have best queens.

#### Getting Increase and Not Honey.

1. I have 3 colonies of bees, and they have their brood-combs built so unevenly that it is almost impossible to divide them. I wish to increase in colonies, and do not care to produce honey at present. Would you advise me to put new brood-frames with foundation starters in the lower story, and place the brood-combs in the upper story?

2. Will the queen and the worker-bees start to rear in the brood-chamber?

3. Will the nurse-bees take care of the brood in the upper story?

4. Can I do all this, and still increase the number of colonies the same season?

5. When is the best time to make this change?

I have quite a number of basswood trees. IOWA.

ANSWERS.—1. Yes, that plan will work, although it might be better to fill the frames below entirely with foundation.

2. Yes, after the brood-frames are entirely filled in the upper story the bees will build down below.

3. There will be no trouble on that score.

4. The plan proposed will hinder or prevent natural swarming. But when the bees have fairly started in the lower story, then you can set the upper story on a new

stand, being sure not to take the queen with it, allowing the bees to rear a queen of their own, although it will be very much better to give them a queen, or at least a sealed queen-cell.

5. About the time bees are working well on white clover will be a good time in your locality. It might be a better plan at this time to give the second story, and to put an excluder between the two stories, being sure that the queen is in the lower story; then removing the upper story to a new stand ten days or so later.

#### A Galvanized-Iron Honey-Tank.

Will a tank made of galvanized iron do to put extracted honey in to settle, skim, and then draw off into shipping packages? I want to let it remain in the tank only a short time. WISCONSIN.

ANSWER.—I think it would work all right.

#### Thickness of Top-Bars.

Do you believe that a half-inch thick brood-frame top-bar will tend to prevent the bees building burr-comb on such frames, as well as the  $\frac{3}{4}$ -inch top-bar? Which kind do you use? NEBRASKA.

ANSWER.—I do not believe that the  $\frac{1}{2}$ -inch will prevent burr-combs quite as well as the  $\frac{3}{4}$ . Mine are  $\frac{3}{4}$ .

#### Making Hives—Spacing Frames—Sweet Clover—Filberts.

1. I have some hives to make. How will it do to make them about 13x14 inches, and 14 inches high, with the upper story about 11 inches deep?

2. How far apart should the frames be placed, and what kind of lumber should they be made of?

3. Will sweet clover bloom the same year it is planted?

4. How old do filberts have to be before they bloom? MISSOURI.

ANSWERS.—1. Bees will work in almost any kind of a hive; but it is not wise to make one of an odd size.

2. Generally, frames are  $1\frac{1}{2}$  inches apart from center to center, but some prefer  $1\frac{1}{4}$ . There is no better lumber for them than pine.

3. It does not bloom till the second summer, then dies the next winter, root and branch.

4. I don't know anything about filbert trees: if it is a honey-plant perhaps some one can tell us about its blooming.

#### Building a Bee-House in Texas.

I am an amateur bee-keeper, and would like to put my out-apiaries in houses for protection against thieves. We do not need any protection against the cold here, and such a house, single-walled, for protection against thieves, can be built at a cost of about \$1.00 per colony.

Bees begin to get some honey here in April, but we get no surplus until July, all from cotton. May is warm and the bees barely make a living. June is about the hottest month we have, and the bees get a good living and sometimes a little surplus. I know of no one that has kept bees in a house in this State, so I ask for information.

1. Would the bees store as much honey in such a house as in the open?

2. Would they swarm less?

3. Would so much shade keep them from building up sufficiently strong for the honey-flow in July? (Note the weather conditions here.)

4. What are the disadvantages of such a house?

ANSWERS.—1. I think they would.

2. I don't know. That would depend a good deal on the ventilation. If close, so the bees would be warmer than in the open, they might swarm more. If thoroughly ventilated, so the bees would be cooler than in the open, they might swarm less.

3. No, I don't believe the shade would prevent their building up.

4. I don't know anything about it from personal experience, but aside from the matter of expense I think you might find the greatest objection would be that it would be a hot place for you to work in.



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## What Yon Yonson Thinks

For long time ago it vas a man som vas name Adam. He vas a good man, an he never had dun anyting rong, but he vas decieved by da evil sperit, an he ete of da frute vat he vas told not to ete. He make plenty big mistake, an because of das mistake ve iss bornd sinners, an da world is full of sin an misery, and ve half to work four ours daily bread.

But in von vay Adam vos lak odder peoples. Ven da Lord ask him vy for he ete of da frute vot he vas commanded not to ete, he say it vas da voman's folt. Now, if you vil read da bible careful you vil fine dat Adam vas given das commandment before Eve vas created, and it vos Adam's an not Eve's fault. An' da Lord cursed the ground for Adam's sake, an so it iss even now, it iss easy to mak mistak, but it iss plenty hard you to fix it up lak it vos before. An' if ve don't vetch out, a little mistake grow plenty fast, an' by and by ve goan to hav big harvest, an' vot ve sow ve goan to reap.

Ven bad peoples mak mistak it iss bad, but ven good peoples mak mistak it iss lots vorser, cause deir influence go so much furdur an' du more harm.

Now, somebody mak plenty awful big mistake about da lection of da general manager, an' dom is all good mans, so it dun lots of harm. Now, everybody vat mak dat mistak let dom not rest till dom mak it rite. Now, ven ay got card to vote for general manager, ay got paper vot dom call report, an it say dom never got da mony from Abbott vot he collect; but Abbot he pay das mony for long time ago, an got receet vot he carried till it soon be vord out. An' on nodder von paper it say, ven dom try to explain 'bout von dom call "da late unpleasantness"—dat is very nice name for plenty bad ting—but it say da directors don't can lect general manager ven it don't vas any vacancy. But, my goodness, dom knowed dom dun it. Vy for dom goan to du something dom can't do? An' den because dom can't do it, dom blame Abbott for da hol ting. Dat iss lak little boy vot bought gum, an after he svalered it he von't to trade bak. Ay don't can understan' vy for dom go to so much trouble to bete Abbott.

If Mr. Abbott dun sumting awful rong let him stan up an everybody vat never dun any ting rong let him throw big stone at Abbott. Ay tank it don't goan to tak very big pile ma stones to supply da demand before dom vas all good friends, an dom sed nice tings bout each odder. But ven good friends vork together to du good den Satan he sneak up behine an' to mak dom to disagree, an if he can just make dom to quarel den ay tank he make big laf, an rejoice. But ven Satan rejoice den da angels veep.

Mr. A. I. Gleanings, he bean rite sermans for long time, an he du lots of good, an if you tak notes all dom big bee-mans iss good mans, an' dom iss nearly all Christians an temprence mans. Dom don't even chaw tobacco, cause dom follow Mr. A. I. Gleanings teachings, an dom don't smoke corneob pipe, cause Gleanings he giv da Clark's cold-blast smoker so dom can keep cool. Derr is no odder business vat got so many Christian leaders som bee-keeping, an' if dom vil youst yoin hands and fite Satan den Satan vil hav to run lak sixty. An' ve don't goan to hav any more trouble; an ve can turn ours attention to honey-plants an shookted swarms, an pupa-skinna castoffice (little cord vot dom try der quveens up ven dom git too hi lifed and vant to swarm).

Now, ay tank all dom little bee-mans lak Yon Yonson vot belong to N. B. K. A. should vote vot dom tank is best, but all dom directors vot vote for an' lect Abbott before, dom aught to vote for Abbott das time, cause dom is honest an' acknowledge it vas all deir fault, an' dom shud undo da rong dom allreddy dun to Abbott. In place of trying to pull a good brudder down, du lak da good Samaritan, cause ve should prefer ours neighbor before ourself.

Now, if it bean anybody vot don't lak Yon Yonson cause he express hiss opinion about

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## "Bees in Colorado"

I still have several hundred copies of the souvenir with the above title. The bee-papers and a good many people without visible axes to grind have said it is a valuable and attractive thing. If you should like to have a copy, send me a silver dime or 5 two-cent stamps, and I will mail you a copy.

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vat dom call "da late unpleasantness," den let him stan' up an ay vill forgive him, for ay lak all dom bee-mans an vont dom to be good.

Now, ay is dun on das subject. Ay tank you can't gess, an ay don't goan to tell you, who ay goan to vote for elder, you bet.

YON YONSON.

## FROM MANY FIELDS

### Good Season in 1902.

We had a very good season in 1902, considering our locality, northern Kentucky. I started in the spring with 60 colonies of bees, increased to 85, and took 2500 pounds of nice white honey in one-pound sections. We got no honey last fall. My bees are in good condition at this date.

There seems to be good prospect for a honey crop this year. The ground is full of white clover.

I admire the old American Bee Journal as much as ever. **P. McDOWELL.**

Mason Co., Ky., Jan. 24.

### Fine Weather for Bees.

We are having fine weather here for bees. Nine degrees below zero is the coldest we have had so far. The bees have had a good flight every 20 days, and a good clean-out.

I have my bees under a good shed, out of all the storms.

I have not had the best health this winter.

**G. W. VANGUNDY.**

Uinta Co., Utah, Jan. 24.

### Fastening Foundation in Sections.

We used the Daisy Foundation Fastener, but I did not like the way it worked, so I made a little change, and thought it might help others to tell how I fixed it. The way it was, it got too hot for the wax and would melt it down if one did not hurry. I nailed a tin on the block that holds the sections, and let it just miss the iron plate (under the plate); the tin cuts off all the heat from the lamp so the plate will not get so hot, and the heat from the lamp cannot get to the starters.

I think I have made it plain.

**JOHN ERDMAN.**

Berrien Co., Mich., Jan. 23.

### Bees Demoralized—Bee-Honey.

My bees were demoralized last year, as were those of the rest of the fraternity, but I fed them, and humored them as well as I could. I built them a nice cellar and on top of that a nice bee-house, so they will be in shelter and shade, as it may be desirable.

My place on University Heights is high and exposed to public gaze. Now the house is a puzzle to the passers-by, that is, if they don't come too near.

**REV. H. A. WINTER.**

Dane Co., Wis., Jan. 27.

### Wintering Bees—Season of 1903.

My bees did fairly well the past season—I sold 35 pounds of fancy-white comb honey at 15 cents per pound, from 2 colonies, and I took out several pounds for home use. I am wintering 4 colonies, which seem to be in pretty fair condition. I winter my bees under ground, just leaving an air-hole. I pile ground first, then put sod over the top, which I lay like shingles, and on the very top I put an extra-big sod, and it keeps the snow or rain-water out, and keeps the bees dry and warm.

1902 was a pretty fair season for bees in this locality, only it was a little too cold up to June, but the latter part was warm enough for bees or human beings. There were plenty of rains all summer, floods tearing bridges, and the railroads and cornfields were all

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washed out. The corn crop in this part of the country did not amount to very much, as the corn all froze.

We are having a very comfortable winter so far; it has not been 20 below zero yet, and not more than six inches of snow. Last week the snow was nearly all gone, but yesterday it snowed some and to-day a little more, which will almost make sleighing.

I do not see how any bee-keeper manages to get along without the American Bee Journal. Clayton Co., Iowa. B. F. SCHMIDT.

### Has Kept Bees Long.

I put my bees in for the winter packed well with chaff and ground cork. I have 52 colonies. They stored only 200 pounds of surplus last season, it being too wet or cold.

I had to feed several colonies in the fall; I had 58 colonies then, but when I commenced to pack for winter I found 6 colonies had starved out.

I have kept bees for 38 years, and sometimes have more than at other times. I use all movable-frame hives. I used to use the D. P. Kidder hives, but have now discarded them and am using the Falconer chaff hive, also some Simplicity and Chautauqua, and the dovetail. They are all very satisfactory to me. The fence separators I do not like, nor do I like the plain sections; I would rather have the  $4\frac{1}{4}$  by  $4\frac{1}{4}$  with wood separators or even tin. I have used both kinds. The trouble with the fence separators is, the bees build comb to them so that when I take out the sections a good many of the cappings are broken, and it makes them leak.

ELISHA BAILEY.

Erie Co., N. Y., Jan. 27.

### Swarming-Out in Winter.

My bees are wintering finely. They had a flight 2 weeks ago, which did them lots of good. I had one swarm out then just like in summer. I did not know what to make of it at the time; they went in with their next-door neighbor, which was a weak one, but had plenty of stores, but when I examined their hive I found the queen dead, and about 30 pounds of honey, so I concluded they could not exist long without a queen.

P. H. HARBECK.

LaSalle Co., Ill., Jan. 24.

### A Fair Crop Last Year.

I had a fair crop of honey last year, but would have gotten more if it had not been so wet. I got 1300 pounds from 21 colonies, spring count, and increased to 41.

MORTIMER DAVIS.

Livingston Co., N. Y., Jan. 19.

### Italian Bees—Smoke for Foul Brood.

I have read so much about the long-tongue queens that it makes me laugh. The Italians are the best workers in every respect. The advantages of the Italian bees are:

1. They are more industrious.
2. The queens are more prolific.
3. They can obtain honey from flowers where blacks cannot.
4. They will not hang on the outside of the hives for weeks and months before they swarm, like the blacks do.
5. They seldom sting, unless they are roughly handled or abused, then they will defend themselves vigorously.

6. They are a harder bee, and can stand more cold than the blacks. I have kept bees for the last 45 years, and tried all kind of bees, but the Italian takes the lead.

7. The Italian bees swarm earlier.

I have read so much about clipping queens' wings, and I tried it several times, but I soon let it alone. It is what I call a nuisance. It may do for an old quack doctor who has nothing else to do, but it would not agree with most bee-keepers. A clipped queen when it leaves its hive is sure to fall to the ground, and the ants, spiders or toads will soon take care of her. I would rather lose a colony than clip all the queens. I have handled bees from childhood, and I can handle them like flies. I can take a whole colony of bees, and



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A Celluloid Queen-Button is a very pretty thing for a bee-keeper or honey-seller to wear on his coat-lapel. It often serves to introduce the subject of honey, and frequently leads to a sale.

NOTE.—One reader writes: "I have every reason to believe that it would be a very good idea for every bee-keeper to wear one (of the buttons) as it will cause people to ask questions about the busy bee, and many a conversation thus started would wind up with the sale of more or less honey; at any rate it would give the bee-keeper a superior opportunity to enlighten many a person in regard to honey and bees."



The picture shown herewith is a reproduction of a motto queen-button that we are furnishing to bee-keepers. It has a pin on the underside to fasten it.

Price, by mail, 6 cents; two for 10 cents; or 6 for 25 cents. Send all orders to the office of the American Bee Journal.

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Boys, Girls, old and young alike, make money working for us. We furnish capital to start you in business. Send us 10c stamps or silver for full instructions and a line of samples to work with. DRAPER PUBLISHING CO., Chicago, Ill.

The Deming Catalog.—The 1903 catalogue of the Deming Company of Salem, Ohio, is just off the press. As usual, our readers will look to it to exemplify in practical form the latest ideas in spraying orchards, vines, potatoes, shrubbery, etc. The Deming people have been so long engaged in the business of making Sprayers, and their whole line has been brought up to such high efficiency in the estimation of spraying people, that it has become second-nature to look to their catalog to show what is best adapted to any particular purpose. It includes Hand, Bucket, Knapsack, Barrel, Mounted and Power Sprayers. In certain sprayers of their line, notably the Century, Simplex, Peerless and Success Knapsack Sprayers, the mechanical agitation of the liquid, insuring perfect mixing of poison with the water, is worked out to a nicety. The wide adaptability and general usefulness of the line cannot be realized without perusing the catalog. As usual, it will be mailed to any one writing for it. Kindly mention the American Bee Journal when writing them.

empty them over my naked body without receiving a sting. I stated the same thing some 24 years ago when Mr. Newman was editor of the American Bee Journal.

For foul brood I use hickory-wood smoke three times a week. Fill the hives plump full, until it pours out of the entrance. Keep it up from spring until fall.

GUSTAV LEUPOLD.

Will Co., Ill., Jan. 9.

## About Half a Crop.

In 1902, from 18 colonies, spring count, I got 362 pounds of comb honey, and 346 pounds of extracted—about half a crop for this section of country.

The floral matter was unusually prolific, more particularly the basswood; and just at the beginning of the flow of the latter those tremendous rains utterly destroyed the nectar on which the honey crop principally depended.

We did not have that continued cold weather in June like many complained of.

I winter my bees on the summer stands, with winter-cases slipped over the hives, snugly packed with leaves.

The outlook for white-clover the coming season is great.

M. N. SIMON.

Wood Co., Ohio, Jan. 26.

## No Nectar in White Clover.

I have seen a great deal of complaint about white clover not having nectar in it the past season. I have been in the bee-business since 1880, and have made a close study of honey-plants. Clover will not yield much the year it comes from seed. The young clover comes up in the spring, and in June and July it is growing runners, the same as strawberry plants; these runners take root like the berry-runners do, until the ground is all matted over the second year when the plants have their growth and the whole energy of the plant goes to bloom, honey and seed. The blossoms come all along on the runners that grew the year before.

In 1901 the drouth in this country killed all the clover, and blue-grass, too. The clover came up in full glory when it commenced to rain last spring. Next season promises to be a great one for honey in this part of the country. The prospects are the best I have seen for 15 years. Get ready for it, and see if your non-swarming plans fail.

FRANK VOORHEES.

Henderson Co., Ill., Jan. 21.

## The Climate of Washington.

In the "Question and Answer" department (page 779, 1902). I notice a statement which is somewhat misleading, as to the climatic conditions of our State. The statement reads thus: "It rains almost constantly from the first of November to the first of March." It is signed "Washington." Now, as for the western part of the State, this statement is no doubt about correct, but it does not apply to eastern Washington, as we don't have more than about 2 days in which it rains or snows in a week, on an average, from Nov. 1 to March 1, or any season of the year. We don't have any more rain here than is needed for the good of the country.

It might be of interest to some readers to know upon what days bees were able to fly last winter, in this country; I will give the dates and temperature, as this will give an idea of the weather that we have here. The dates, as per diary kept by me in connection with bee-keeping, are as follows:

Nov. 13, packed bees for winter; temperature 48 degrees; Nov. 14, 50; Nov. 24, 45; Jan. 4, 46; Jan. 7, 53; Feb. 15, 50; Feb. 21, 48.

After this date they usually take frequent flights. I winter my bees in a long, low shed, all boxed up except a space in front of the entrance so they can fly when the weather is suitable. The hives set on their stands, and are about 4 inches apart. I use a Hill's device on top of the frames, and a gunny-sack quilt on this; then put on an empty super, then take a large gunny-sack quilt and spread over the super, and press the quilt down to the other quilt, and then fill its super with chaff, fold the quilt over it, put on the cover,

## Tip-Top Glass Honey-Jars



The picture shows herewith represents the best one-pound jar for honey that we know of. It is made of the clearest flint glass, and when filled with honey, and a neat label attached, it makes as handsome a package as can be imagined. Its glass top sets on a flat rubber ring, and is held in place by a flat steel spring across the top as shown in the picture. It is practically air-tight, thus permitting no leak,

which is an important thing with honey-sellers.

We can furnish these jars, f.o.b. Chicago, at these prices: One gross, \$5.00; two gross, \$4.75 a gross; five or more gross \$4.50 per gross.

If you try them once you will likely use no other kind of top or sealing arrangement for honey jars.

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227 EAST OHIO STREET, CHICAGO, ILL.



put straw all around and between the hives so they are ready for winter. I use the 8-inch cross-cut saw, with mandrel, and complete outfit of this kind, also a set of carpenter's tools, so I make all my hives, supers, frames, hive-stands, bottom-boards, covers, and everything in that line except sections and separators.

I have the "A B C of Bee-Culture," as textbook, and the American Bee Journal as my helper, so I am very well equipped for the bee-keeper.

By the way, I want to say that the coldest weather we have had this fall and winter, is 11 degrees above zero one morning, and 16 degrees for 3 or 4 different mornings. It is now Christmas day, ranging from 36 degrees in the morning, to 42 degrees at noon.

Whitman Co., Wash. L. V. RICKETTS.

### Management for Best Results.

Partly to disagree with the statement on page 823 (1902), and partly to give my own views on wintering bees and suitable hives, I wish to say a few words that may benefit some beginners in my circumstances. Of course, I am running mostly for extracted honey.

I have all 8-frame hives, and will tell how I work them to get an extra-good yield of honey when others in this locality complain of short crops.

I use 2 hive-bodies, one on top of the other, and 16 frames of brood-comb. Of course, the second hive should not be put on until the lower hive is full of brood, which is generally about June 1. After the second hive is on, put a honey-board over it, and if the weather is all right put a third story on with extracting-combs. In my case the bees go up into the third story with most of their surplus, and the combs are always nice, white and clean. Of course, I have plenty of hives which would not be advisable for those with a large number of colonies; but this is intended more for people with 25 or 50 colonies of bees.

Now, 10-frame hives would not be so good in my case, because they are too heavy and bulky to handle, and 20 frames are too many for the queen to occupy, while 10 are not enough; 16 seem about right. The bees may fill the two outside combs with honey—so much the better for winter stores.

In regard to the article on page 823, 6 brood-combs would not be enough for most of my queens, and I don't see how you can have a strong colony of bees with so few combs, unless you build up with more combs, and then take away when they are strong; that will generally force the bees up into the surplus apartments. But in regard to putting 6 or 8 frames of honey over a hive of bees for wintering, that will not always work, for the bees may starve and not find the honey in cellar-wintering. I have four similar cases this winter, where I had to take out the outside frames and spread the others and put honey from the top story down with the bees. It's all right, generally, if the bees have been occupying the combs all summer, but to put honey in a top story just before putting bees into the cellar doesn't always work, unless they are crowded for room. P. H. DAVIS.

Hennepin Co., Minn.

### CONVENTION NOTICE.

New York.—The annual meeting of the Oswego County Bee-Keepers' Association will be held at Fulton, N. Y., Saturday, March 7, 1903. Prof. Frank Benton will be present and address the meeting. An interesting program is being prepared, and all persons interested in bees are cordially invited to be present.

MORTIMER STEVENS, Pres.

CHAS. B. ALLEN, Sec.



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144 & 146 Erie St., Chicago, Ill.

**Pencilaria—A New Feed.**—A. A. Beener, of Cook Co., Ill., says: "The new fodder-plant, Pencilaria, made a phenomenal growth as compared with corn and other plants of that species, some of the plants reaching a height of ten feet in spite of the floods covering my ground a foot deep during the summer."

This new fodder-plant seems to be attracting universal attention among our readers, and the crop is truly wonderful, as it yields from three to seven cuttings per year from one sowing and has produced 95 tons of green fodder per acre from three cuttings in a carefully weighed test.

The seeds are so very small that one pound will plant an acre and still one plant usually has 25 to 75 stalks growing 7 to 14 feet in height. When it is figured that one-fourth acre will produce sufficient fodder to support a cow six months either for summer or winter food, and that the dry hay as well as the fresh fodder is highly nourishing, the value of the new plant will be better appreciated.

Knowing that many of our readers will want to try it, we have arranged with the introducers, the Iowa Seed Co., of Des Moines, Iowa, to send a small sample (sufficient to plant a row 100 feet long) free to any one who wishes it. Be sure to mention the American Bee Journal when writing them.

## BINGHAM'S PATENT Smokers

25 years the best. Send for Circular. 25Atf T. F. BINGHAM, Farwell, Mich. Please mention Bee Journal when writing.

## HONEY AND BEESWAX

MARKET QUOTATIONS.

CHICAGO, Jan. 9.—The demand is not more than usual; hence stocks are sufficient, especially as Cuba has now comb honey on this market. This is a new source of supply, and is a factor that must be reckoned with, as it obviates the necessity of laying in a stock during the summer and autumn to draw from in the winter and spring months. The best grades of white comb sell at 15@16c per pound, with travel-stained and light amber, 13@14c; darker grades, 10@12. Extracted, 7@8c for white, and 6@7c for ambers. Beeswax steady at 30c.

R. A. BURNETT & Co.

ALBANY, N. Y., Jan. 7.—Honey demand and receipts light. We quote white comb, 15 cents; mixed, 14c; buckwheat, 13@14c. Extracted, white, 7@7½c; dark and buckwheat, 7@7½c. More demand for buckwheat than any other here.

H. R. WRIGHT.

KANSAS CITY, Jan. 31.—The demand for honey has been very light; receipts fair. We quote as follows: Extra fancy, per case, 24 sections, \$3.40; strictly No. 1, \$3.38; No. 1 amber, \$3.00@3.25. Extracted, white, per pound, 7c; amber, 6@6½c. Beeswax, 30c. C. C. CLEMONS & Co.

CINCINNATI, Jan. 7.—The demand for all kinds of honey has fallen off considerably in the last few weeks, owing to the many other sweets offered at this season of the year. Lower prices are no inducement to increase the consumption, as the demand is not there, and will not be until about the end of the month; consequently it is folly to offer at lower prices. We quote amber extracted in barrels at 5½@6½c; white clover and basswood, 8@9½c. Fancy white comb honey, 16@17c; lower grades hard to sell at any price. Beeswax firm at 29@30c.

THE FRED W. MUTH CO.

NEW YORK, Jan. 23.—Demand for comb honey quiet on all grades, and prices show a downward tendency. Supply quite sufficient to meet demand, if not more so. We quote fancy white at 15c; No. 1, at 14c; No. 2, at from 12@13c; dark and buckwheat, at from 11@12c.

Extracted also quiet with abundant supplies with the exception of white clover. We quote white at 7c; amber at 6½c, and dark at 6c. Common in barrels from 60@65c per gallon.

Beeswax firm at from 29@30c.

HILDRETH & SEIGLER.

CINCINNATI, Jan. 20.—The demand for comb honey has fallen off, which in general happens right after the holidays, although prices rule as before: White clover, 15½c; extra fancy water-white, 16c; no demand for lower grades. Extracted honey is in fair demand, and sells as follows: Amber, in barrels, 5½@5¾c; in cans, 6c; alfalfa, 7½c; white clover, 7½@8½c. Beeswax, 28@30c.

C. H. W. WEBER.

SAN FRANCISCO, Jan. 14.—White comb honey, 11½@12½c; light amber, 10@11c; dark, 5@6½c. Extracted, white, 6@6½c; light amber, 5@5½c; amber, 4@4½c. Beeswax, good to choice, light, 26@27½c; strictly fancy light, 29@30c.

The country merchant, representative of trade interests, estimates "entire stock of honey of 1902 in the State at 15 cars," worth 5½@6c per pound at primary points, subject to a \$1.10 freight-rate to the East.

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This Emerson stiff-board Binder with cloth back for the American Bee Journal we mail for but 60 cents; or we will send it with the Bee Journal for one year—both for only \$1.40. It is a fine thing to preserve the copies of the Journal as fast as they are received. If you have this "Emerson" no further binding is necessary.

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This Alfalfa Honey should go off like hot-cakes. Better order at once, and get a good supply for your customers.

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